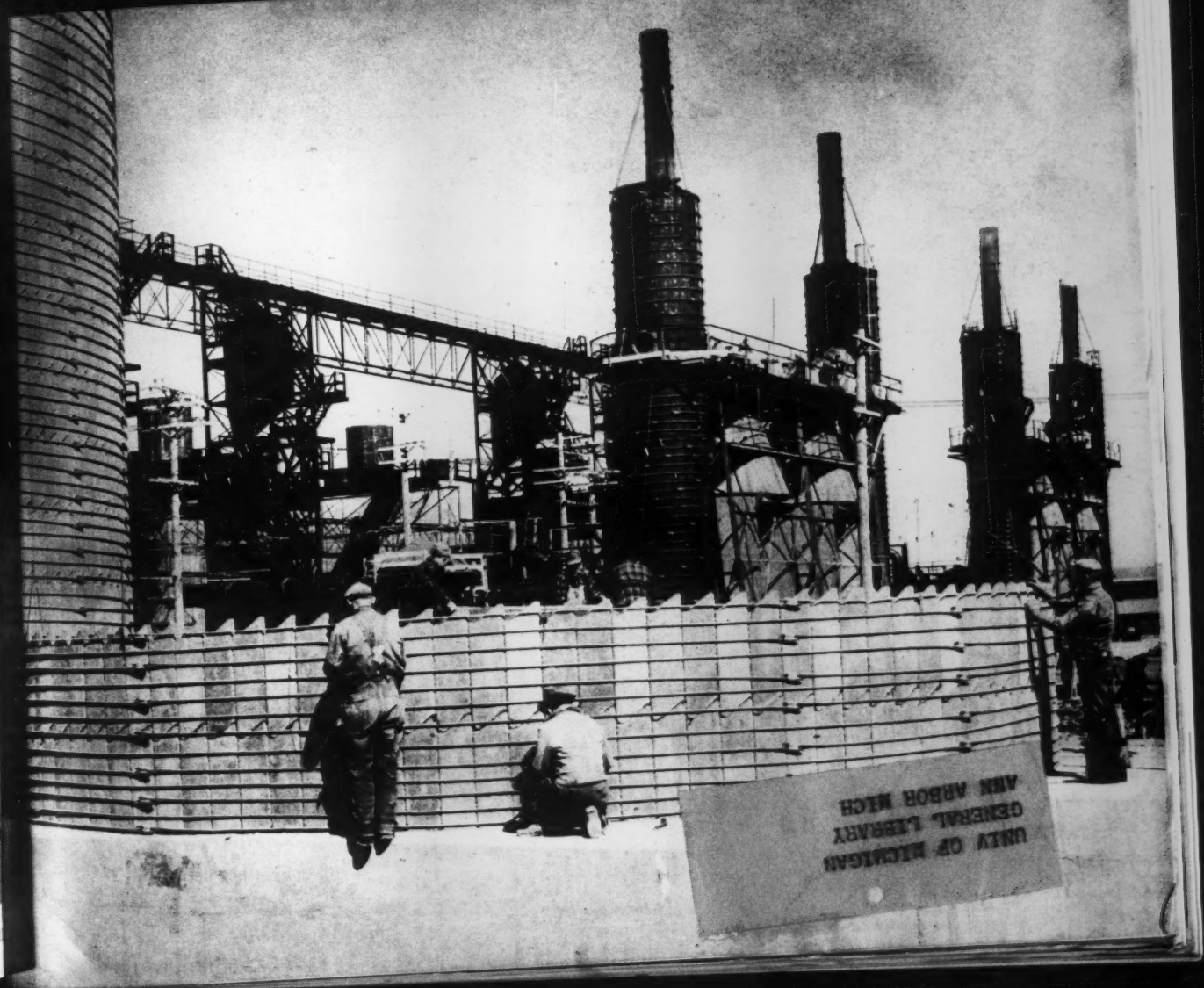
ENGINEERING NEWS-RECORD

Erecting precast concrete chemical tanks at a new mid-west war plant—See p. 8



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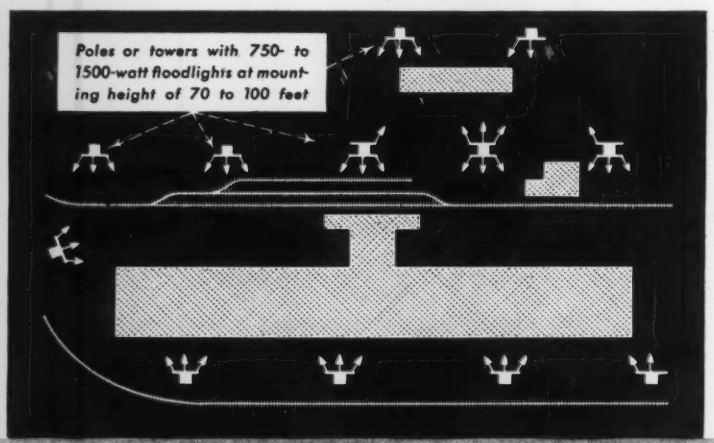
THE HARD WAY

Shifting 100-watt bulbs and pie-pan reflectors to meet the changing requirements of the work is the hard way . . . . and time consuming, too!

NEED 24 HOURS of DAYLIGHT?

USE FLOODLIGHTS . . . . and Do It the EASY WAY

WHENEVER outdoor construction must be carried on "around the clock" to meet the completion date, the work can be done under adequate floodlighting as accurately, speedily, and as safely as by day. Sufficient light can usually be projected into the whole work area by mounting the lights on a few fixed poles or towers—two or more units on each. The advantages of this *fixed* system are obvious if you have experienced the annoyance and delay involved in doing it the hard way that is, shifting lamps, dish-pan reflectors, and temporary wiring from place to place to meet the ever-changing requirements of the work. Occasionally, however, it is practical to provide portable towers mounted on timber sled bases which can be dragged from point to point by truck or tractor.



For excavation areas, 0.3 to 0.4 watt per square foot is us
ample; for construction work, where more uniform lig
is usually necessary, 1.0 to 1.5 watts per square foo
recommended. Fixed-pole spacing may be from two to
times the mounting height on small projects and up t
times on larger ones. And, illumination at any working
should come from at least two floodlight locations.

Learn how you can use G-E floodlights, cable, and swi
to advantage on
project—consult
lighting specialist i
nearest of our more
80 local offices. *Ge
Electric, Schenectady,*

The Army-Navy "E", for Excelle
in the manufacture of war equ
ment, now flies over six G E plan
employing 100,000 men and wom

GENERAL ELECTRIC

461-65-2B69

The Week In Engineering and Construction

INEERING NEWS-RECORD • APRIL 29, 1943 • VOLUME 130 • NUMBER 17

avy relaxes specifications n steel plate for ships

ange in tensile strength and elongation requirements uld aid Carnegie-Illinois Steel Corp. in test-falsifica- n action brought by Justice Department

Navy this week eased slightly the strength and elongation require- in its specifications for ship plate. previously the specification had d an average tensile strength of psi, with a minimum test of , they now call for a flat test of psi. The elongation requirement en lowered from the previous 23 percent to 21 percent, but the 30,000-psi. yield point is unchanged.

This action of the Navy Department is assumed to result from the conference on specifications called recently (*ENR*, April 22, p. 536) by War Production Board chief, Donald Nelson, in an effort to halt the drop in plate production that followed the Truman committee charges (*ENR*, April 1, p. 451) that Carnegie-Illinois Steel Corp. had falsified tests on plate to be delivered to the Navy, the Maritime Commission, and the Treasury Department (for lend-lease).

Immediate effect of the Navy move, however, is to make more difficult the present effort of the Justice Department to bring criminal charges against Carnegie-Illinois. Obviously, it will be difficult to convince a jury of the wickedness of delivering sub-specification steel when the Navy, a few weeks later, agrees to accept such steel. The Justice Department, it is understood, is basing its case before a grand jury now in session in Pittsburg on the same charges brought out by the Truman committee—that Carnegie-Illinois inspectors "pulled in" tests of 57,000 psi., 20 percent elongation steel so that it would be passed as 60,000 psi. and 23 percent elongation material.

Navy makes own tests

Technically, the change should not affect the pending case. For one thing, the case is being based on deliveries to the Maritime Commission and Treasury Department rather than to the Navy, since the Navy made its own tests while the other two agencies relied on steel company tests. For another thing, the charge brought is to be misrepresentation to the government in reporting the results of the tests; Justice Department officials point out it is, thus, irrelevant whether or not the sub-specification steel was adequate for its purpose.

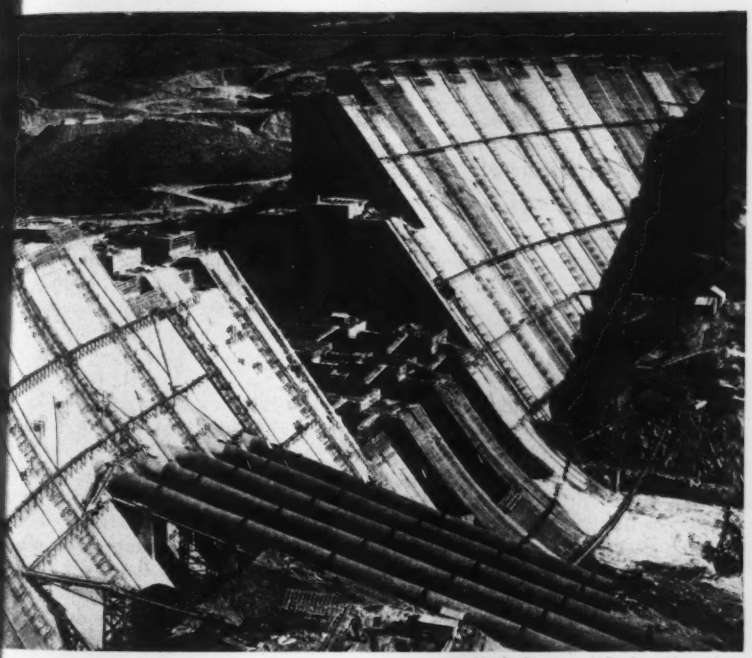
• • •

Engineer tutors sought by the Navy

The Navy is seeking as candidates for commissions men qualified to teach engineering, physics or mathematics, and to act as anti-submarine warfare and attack unit teachers, the office of Naval Officer Procurement has announced.

Men who have had previous teaching experience in mathematics, physics, electrical, civil or mechanical engineering, or who have an educational background in these subjects, plus supervisory experience and leadership qualities, will qualify as officer candidates, it was said.

Applications for commissions in connection with this type of assignment should be made to the Office of Naval Officer Procurement, Washington, D. C.



U. S. Bureau of Reclamation photo

Concrete progress in 21 months at Shasta Dam

e than five million yards of concrete een placed in Shasta Dam since the first was deposited in July, 1941. Now g 80 per cent completion, this major of the U. S. Bureau of Reclamation an important addition to power genera- nd agricultural irrigation facilities in rnia. This project is one of the few Reclamation Bureau jobs on which work has been permitted to continue; construction has been halted on forty-two others.

Upon completion, the dam will contain a total of 6,500,000 cu. yd. of concrete. The high blocks in the left abutment section seen at the upper right of the photograph are within 20 ft. of their ultimate height.

Postwar city rehabilitation bill gets added legislative support

Plan to provide federal financing for municipal purchase of blighted urban areas expected to have stormy time in the Senate.

The urban rehabilitation bill introduced earlier this month by Senator Thomas of Utah (*ENR* April 8, p. 465) this week got a chance to exert greater influence following the decision to withdraw it from its pigeonhole in Senator George's committee on postwar planning. It is expected that the bill will be referred to the much more sympathetic committee on education and labor.

Even its proponents have no hope of early passage of this measure—which is designed to provide federal financing for municipal purchase of blighted areas in cities, thus opening the way to a substantial volume of public and private construction after the war. Not only does it have serious political weaknesses—lack of appeal to the rural votes that dominate Congress coupled with the fact that it bails out the always unpopular slum landlord—but it has been unable to evoke any interest at the White House.

However, in the labor committee the bill will probably be made the subject of hearings and may even get a favorable committee report, thus serving the immediate purpose of its sponsors, which is to stimulate discussion.

Although several senators, Republican and Democratic, have expressed interest in the measure, most of its present support comes from the group of New Deal economists centering around Alvin Hansen of the Federal Reserve Board, as well as from men interested in city planning. This group by no means represents all the New Dealers. A definite split is developing among Washington planners as to the place of construction and public works in postwar economic stimulation. Both groups support strong public works programs, but they differ in the importance they attach to it.

Representing one viewpoint is the National Resources Planning Board, whose recent report on postwar problems emphasizes that no construction program within the limits of feasability can do more than a little toward the maintenance of full employment. This group is busy seeking other means of stimulating the economy.

On the other hand there is the more conservative group around Hansen. Their belief is that an annual construction program of something like 15 billions, of which about half would be public works, would be sufficient by itself to guarantee something close to full employment.

Blackstone Studios, Inc.

James W. Rickey dies, famous hydraulic engineer

James W. Rickey, former chief hydraulic engineer of the Aluminum Co. of America, died in Washington, D. C., April 19, at the age of 71.

Born in Dayton, O., Mr. Rickey was graduated in 1894 from the Rensselaer Polytechnic Institute, Troy, N. Y., as a civil engineer. From 1897 to 1907 he was principal assistant engineer for the St. Anthony Falls Power Co. and the Minneapolis Mill Co., and in 1907 was engaged by the Aluminum Co. of America as chief hydraulic engineer. For the next 30 years he designed and supervised the building of all the company's dams, and was responsible for many important hydroelectric developments.

The most dramatic manifestation of Mr. Rickey's engineering genius was offered during the construction of the Chute-a-Caron development, 140 miles north of the city of Quebec. It was necessary to place a 92-ft. dam across the Sa River at a point where the swiftn depth of the current made it alm possible to accomplish the obj normal means.

Mr. Rickey built the co standing on end at the side of th and tipped it over with a cha dynamite.

Since 1937 Mr. Rickey had been sulting engineer to the Aluminu and recently had rendered valuabl ice to the government through his sel on national defense problems ing available hydroelectric power

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Honor Albert Kahn, I for work on naval bas

The Bureau of Yards and Docks, Department, has just commended th of Albert Kahn, Associated Arc and Engineers, Inc., of Detroit, fo standing services rendered in des buildings and facilities for Nava Stations and other Naval Statio numerous Pacific Islands, in Alask the Continenetal United States in erance of the Navy war construction gram.

These tasks were begun in 19 accordance with a special act of gress which authorized the Bure Yards and Docks to select an arc engineer to design, and contract build, several naval bases during emergency, without advertising for petitive bids. Albert Kahn, Inc., chosen to prepare the drawings. work required some 1,650 large s together with the necessary spec tions. Complete plans and specifica for an average of 1.9 buildings per were produced for many months. T contractors were chosen for each pr Representatives of these firms, tog with Captain Trexel, Rear Admir Moreell's assistant, and the Chief A tect of the Bureau, and Captain shall met and discussed each cla building, decided on the type of struction, buildings required first, all other details, and adopted a de program of procedure. The plans then prepared in the order agreed and prints were sent to the contra immediately so they could begin l up the necessary materials. Practi all materials had to be fabricated o mainland and shipped to the va bases, and most of the labor also to be sent from home.

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tle hope seen for rida canal action

rent efforts in the Senate to pro- unds for construction of a barge across Florida are given little of success in Washington. Both rmy and the Navy have recom- d against present construction of nal, although the Army said that ld be of military value if it were istence now. Only Secretary of erce Jones reported in favor of oject.

$44,000,000 appropriation for con- on of the canal was stricken from ar Department Civil Functions ap- iation by the House appropriations ittee and subsequently by the full . A Senate sub-committee is now ering restoration of the fund. able sub-committee views on the t are expected to be overruled by ll committee or by the Senate when es up for a vote.

ual construction of the project ap- even more remote than the appro- on. Even should the money be available, it is quite likely that the of Engineers would refrain from ng it. And even should the Corps to go ahead, WPB would probably priorities.

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nitary engineers closer allocation by WMC

curement and assignment of sani- engineers to meet the needs of the d forces as well as essential civilian health activities is moving closer alization. The machinery has been lished to survey and catalog about men who might qualify as sanitary eers, and questionnaires have gone. ll soon go out to all of these.

cruitment of engineers is being con- d by the War Manpower Commis- Procurement and Assignment Serv- or Physicians, Dentists and Veteri- ns, with the advice of a special com- e on sanitary engineering headed bel Wolman, consulting engineer. more. (*ENR* Jan. 21, 1943, page Capt. C. W. Klassen, of the Sani- Corps, until recently state sanitary eer of Illinois, is directing the work is group.

h the return of the questionnaires, 800 of which already are in, the ittee will estimate the availability nitary engineering personnel of s ages and grades of experience, will establish a plan for allocation far as practicable to meet the n and military needs. It is believed ll men under 38 will be recruited e armed forces, with the exception chers and a few men in key posi- of governmental health agencies.

Men over 38 will be sought to replace the younger men taken from state and local health agencies. Study is being given to a plan whereby the older men would receive additional compensation for taking a position that pays less than that which they now receive.

Engineers in the Sanitary Corps at the present time total about 400, and about double that number is needed. In addition, other units of the armed forces, including the Corps of Engineers, are in need of sanitary engineers. All the recruiting to satisfy these demands will be handled by the Procurement and Assignment Service. Inquiries for further information should be made to the War Manpower Commission, 1006 U Street, Washington, D. C.

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Illinois Tech graduates unique engineering class

An intensified training course in industrial engineering has just been completed by the Illinois Institute of Technology, Chicago. Lasting ten weeks, eight hours a day, the course is aimed to fit "white collar" workers for placement in essential war-plant jobs. The recently graduated class of 73 members, averaging 41 years in age, included several who abandoned important non-essential positions to enroll in this training. A new class will begin May 3, according to John I. Yellott, director of the institute's war training program.

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Canso Strait causeway proposed by Nova Scotia

Action has been started in the Nova Scotia legislature for construction of a causeway across Canso Strait, connecting the mainland of Nova Scotia with Cape Breton Island. The only communication between the mainland and island at present is by a 27-year old ferry for rail and motor cars. Estimates on the cost of building the causeway are $3,000,000 for actual construction, and $2,000,000 more for the approaches and locks. The claim is advanced that a causeway, with provision for both rail and vehicular traffic, would pay for itself in view of the cost of ferrying, which is from $500,000 to $750,000 annually, paid for by the Dominion government. It is said that if the ferries were unavailable through an act of war or otherwise, Cape Breton Island would be cut off. The soft coal mines and steel mills, which are basic industries, would be unable to ship the products to the central provinces or even to Nova Scotia.

Wisconsin engineers may affiliate with NSPE

A committee to study the advisability of organizing a Wisconsin professional engineers' society to become affiliated with the National Society of Professional Engineers, was named April 22 at a meeting of about a hundred registered engineers in Milwaukee.

The committee, named by Herbert Moore, who was elected temporary chairman at the meeting, will report its findings to the 1,300 registered engineers in Wisconsin. The committee consists of the following: Lawrence E. Peterson, Milwaukee, chairman, consulting engineer; George W. Martin, Green Bay, superintendent of the Green Bay Metropolitan Sewerage District; Ben G. Elliott, Madison, professor at the University of Wisconsin; Henry J. Hunt, Madison, consulting engineer; William E. Crawford, Milwaukee, of the A. O. Smith Co.; Hans P. Dahlstrand, Milwaukee, of the Allis-Chalmers Mfg. Co.; Arthur Simon, Milwaukee, consulting engineer; William J. Urban, Milwaukee, of the Falk Corp.; and Archie E. Beecher, of Wausu, city engineer.

• • •

Permits are required to travel Alcan Highway

No civilian will be permitted on the Alcan Highway without a permit, Prime Minister Mackenzie King of Canada has announced.

Requests for permission to travel along the military highway to Alaska are being received in considerable numbers by both the Canadian and the United States authorities. Most of these requests come from persons who have no compelling reason for visiting the Northwest at the present time. There are now no facilities along most of the highway for ordinary civilian traffic. For sleeping accommodations, food, gasoline and repairs such travelers would have to rely on assistance from the military authorities. Every non-essential traveler who has to be assisted in such ways interferes with the primary work of the military authorities—the completion and operation of the highway for war purposes.

Under these circumstances the authorities have decided that no civilian traffic will be allowed on the Alaskan Highway except in the case of persons whose presence in the area will contribute to the prosecution of the war. A joint control unit will be set up in Edmonton and will be given authority to issue permits to applicants who have legitimate reasons for wishing to travel on the highway.

MEN AT WORK

Eighteen years management of the Southern California Chapter, Associated General Contractors, has been under the direction of these two men, MELVILLE DOZIER, JR. (left) who was Chapter Manager from 1925 to 1933 and is now Director of the Los Angeles County Housing Authority; and FRANK J. CONNOLLY (right) who completed a decade of service as Chapter Manager recently.

On a new Chesapeake & Ohio R. R. tunnel at Afton, Va., through the main ridge of the Blue Ridge Mountains, JAMES STRONG, left, represents the contractors Bates & Rogers Construction Corp. of Chicago, and T. L. GRAVES, resident engineer for the railroad.

At the Columbus, (Ind.) Airbase two prominent engineers on construction are shown with the jeep they use to visit the varied types of construction under way. They are, left to right, PETER HARDIN, assistant engineer, for the U. S. Engineers, and CHARLES E. RAGER, resident engineer for the same organization.

When this photograph was taken A. H. G[illegible] project superintendent for the Austin Co., Cleve[land] was waiting orders to start another tough wor[k] project. He has just completed a large manufac[turing] building in the Cleveland area.

F. M. COKER and young Mr. Coker are Texan[s] dug up a pipeline in Texas, moved it to Florid[a] relaid it to carry gasoline from Carabella to [Jack]sonville. Work was done by a subsidiary o[f] American Liberty Pipeline Corp. of Dallas.

...nstruction activity ...down 32 per cent

...enditures for new construction in ...ntinental United States in the first ...r of 1943 amounted to $2,235,000,... ...e Department of Commerce has an...ed. This is 32 percent lower than ...evious quarter and 11 percent be...at of the corresponding period last

...e drop from the fourth quarter of ...is much larger than can be ac...ed for by seasonal conditions. Since ...urth quarter was already a billion ...s less than the record high of 4.3 ... dollars in the third quarter of ... the further decline of 1.1 billion ...s in the first quarter of 1943 shows ...he peak of new construction has ...ely been passed.

...hough the volume of construction ...ly related to the war is considerably ... for the first three months of 1943 ...for the corresponding period last ...it too declined substantially from ...nal quarter of 1942. Thus, the 880 ...n dollars expended for military and ... construction, the most important ...onent of this category, although 40 ...nt more than that of a year ago, is ...rcent less than in the fourth quarter. ...arly the 713 million dollars of pub...financed industrial building, which ...20 percent higher than in the first ...er of 1942, dropped 28 percent from ...constructed in the final quarter of ...ear. It is clear that the major part ...e preparation for full-scale arma... output has been completed and that ...ft of men and materials from con...tion is now taking place.

...al nonfarm residential building con...d the downward trend evident ...ghout most of 1942, despite some ...ase in publicly-financed structures. ...te residential building totalled only ...illion dollars in the first quarter of ... a drop of 42 percent from the ...ding three months and 70 percent ...han the corresponding period in ... Publicly-financed residential build...eclined 5 percent from the 190 mil...ollars expended in the fourth quar...t was more than 70 percent above ...rst three months of last year.

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...erglades reclamation ...anned by Florida

...vernor Holland of Florida has en...d the formulation of an overall plan ...eclaiming and conserving natural ...rces of the Florida Everglades, ... the Glades Drainage District Com...on as coordinator and supervisor.. ...e project includes making complete ...ys of needs for further drainage. ...control, water supply conservation and other requirements of the region. On the basis of the information collected and coordinated, a general plan for development of the Everglades along all desired lines would be worked out.

Representatives of practically all agencies interested in Everglades activities joined the Soil Science Society of Florida in recommending that the drainage district commission, because it has more funds and more authority than others, should take the lead in preparing and carrying out a program. Officials of various federal government services that have worked in the rich muck area will cooperate in making further surveys of necessary measures to be taken. No major legislation will be required to get the plan started, drainage district officials said, but some minor changes in the laws may be necessary to make it effective.

Construction Volume Statistics for Computing 1942 Corporation Taxes

Several contractors, computing corporation taxes for 1942, have requested construction volume statistics from *Engineering News-Record* which show how the years 1936, 1937, 1938 and 1939 compare with "normal".

To answer these requests, the accompanying, heretofore unpublished, table has been assembled to show the full record of construction volume for the period 1925 through 1942. It presents reported engineering construction volume (waterworks and waterways of $15,000 and over in size, other public works $25,000 and over, industrial buildings, $40,000 and over in size, other building projects of $150,000 and over in size) by years, by types of construction, by territories and by public and private construction. It shows also the *ENR* construction volume index and the estimated total volume of all construction, including 1- and 2-family houses, sidewalk and other construction of projects below the minimum sizes noted above for reporting engineering construction. These latter two items are given in the last two columns.

CONSTRUCTION VOLUME 1925-1942

Millions of Dollars (,000,000 omitted)

ENR REPORTED ENGINEERING CONSTRUCTION

	Water-works	Sewers	Bridges	Earth-work*	High-ways	Pub. Bldgs.	Ind. Bldgs.	Comm. Bldgs.	Uncl.	ENR Volume Index**
1925	$ 71	$ 85	$ 70	$ 62	$423	$204	$228	$1176	$240	$201
1926	62	104	87	55	486	227	312	1277	244	228
1927	54	118	144	68	528	254	321	1398	368	263
1928	100	101	133	74	617	290	355	1596	313	287
1929	49	88	137	77	542	356	547	1670	484	317
1930	49	83	131	77	585	356	331	1034	528	260
1931	57	73	116	143	545	384	166	561	387	220
1932	35	25	84	101	380	241	93	166	95	127
1933	67	22	98	137	288	121	152	106	77	102
1934	92	61	99	266	345	204	105	81	106	114
1935	81	100	98	259	325	298	172	109	148	134
1936	92	121	188	182	483	436	309	275	300	185
1937	104	95	133	110	415	333	477	460	309	172
1938	131	136	135	268	638	503	152	550	279	197
1939	163	160	151	233	644	593	283	388	390	211
1940	70	91	120	234	678	1196	594	400	603	269
1941	77	89	112	245	583	2786	496	486	996	375
1942	151	118	50	251	531	5678	200	292	2034	553

ENR REPORTED ENGINEERING CONSTRUCTION

	New Eng.	Mid. Atl.	South	Mid. West	W. of Miss.	Far West	Private	Public	Total	All Types of Construc-tion Est. Total
1925	$199	$935	$248	$474	$408	$295	$1522	$1037	$2559	$8,178
1926	247	856	289	724	415	323	1765	1089	2854	8,878
1927	234	989	290	776	593	371	1999	1255	3254	9,595
1928	222	1383	291	809	538	336	2159	1420	3579	10,580
1929	238	1681	330	747	583	371	2604	1346	3950	10,377
1930	265	1288	270	534	490	326	1784	1389	3173	8,058
1931	186	969	234	380	396	267	1036	1396	2432	5,930
1932	72	404	128	205	236	174	321	898	1219	2,839
1933	59	298	124	151	225	211	329	739	1068	2,440
1934	100	274	215	227	310	235	241	1120	1361	3,104
1935	102	442	245	280	295	226	371	1219	1590	3,681
1936	148	776	309	423	445	286	766	1621	2387	5,590
1937	112	1058	242	423	358	244	1116	1322	2437	5,852
1938	149	1053	300	382	497	410	801	1991	2792	6,480
1939	175	978	454	536	549	310	891	2112	3003	6,974
1940	244	951	853	743	702	493	1162	2825	3987	8,510
1941	312	1211	1245	909	1345	847	1178	4691	5869	11,396
1942	467	1225	1930	1588	2467	1628	556	8750	9306	12,821

*This classification includes earthwork, irrigation, hydropower and drainage work.
** Dollar Volume adjusted for construction cost to represent physical construction volume.

MEN AND JOBS

H. R. Norman, until recently principal engineer in the Galveston, Tex., district office, U. S. Engineers, has accepted a commission as major in the Corps of Engineers.

R. J. Putney, has been appointed flood control engineer for Harris County, Tex. Mr. Putney, a civil engineer who has worked for several years at Houston, which is the county seat of Harris County, replaces J. M. Nagle.

Robert F. Hartman, who has been with the City Planning Commission of Cincinnati, O., for 13 years, has been advanced to the position of assistant engineer.

Maj. Peter J. Smykla, of Yonkers, N. Y., has just been promoted to his present rank from that of captain and has been assigned to duty as executive officer of the 52nd Engineers Combat Regiment at Camp Butner, N. C.

Alfred Benesch, who had been grade separation engineer with the Illinois State Division of Highways when he entered the military service last August with the rank of captain, has been promoted recently to the rank of major. He is attached to the 363rd Engineering Corps at Camp Claiborne, La.

Philip B. Stroyan, civil engineer, graduate from the faculty of Applied Science at the University of British Columbia, has been named superintendent of parks for the city of Vancouver, B. C.

E. H. Honnen, heavy-engineering contractor of Colorado Springs, Col., has been commissioned a lieutenant commander in the construction division of the Navy and is now training in preparation for active service.

C. R. Jones, industrial engineer, has joined the staff of the industrial hygiene division of the Florida State Board of Health.

Lieut. Arthur R. Elsperman of the United States Navy Seabees was recently transferred to the Pacific Coast to complete his training. For nearly 20 years Lieut. Elsperman was a civil engineer with the H. B. Deal & Co., Inc., contractors of St. Louis, Mo.

Joseph W. Cowhig, of Charlotte, N. C., has been promoted to the rank of captain in the transportation division of the Army. Captain Cowhig is a graduate of the University of Virginia in civil engineering and before entering the army as a second lieutenant on Jan. 25, 1942, was employed in the engineering department of the Southern Railway as a junior engineer. He now is stationed at Richmond, Va.

W. T. Rye, who served the Kentucky State Highway Department for many years as a field worker and a district engineer, will become rural highway commissioner on May 1.

Maj. C. G. Saenger is now area engineer for both Camp Carson and Camp Peterson, Air Support Base at Colorado Springs, Colo.

Lt. Col. Carlin H. Whitesell, Jr., Corps of Engineers, has been awarded the Legion of Merit by the War Department for army construction services in Alaska. He was first assigned to Alaska for construction duties on an airbase under the Seattle Engineer District and subsequently served under the Alaska Defense Command as resident engineer for army construction in the Aleutions.

Joe W. Kimzey, chairman of the state department of public utilities of Arkansas, has been appointed state geologist, and Arthur J. Johnson has been appointed to the position of chairman of the state department of public utilities in Mr. Kimzey's place. Mr. Kimzey, a former representative and state senator, will succeed Dr. George C. Branner who served as state geologist 20 years.

Dr. Watson S. Rankin, Charlotte, N. C., has accepted the post of field consultant of the U. S. Public Health Service for North Carolina, Virginia, West Virginia, Maryland and the District of Columbia.

Claude Rogers, assistant engineer of Jefferson County, Ala., has been placed in charge of maintenance of roads, highways and bridges, and also of the sanitary department of the county.

Lieut. Col. Marshall J. Noyes, a civil engineer, has taken up his duties at Lexington, Ky. with the military department staff at the University of Kentucky.

R. P. Harmon has been reappointed as a member of state highway commission of South Dakota for the regular term of four years. He had been appointed last May to succeed James Lake of Rapid City, who had resigned to accept a position as city manager of Rapid City. Mr. Harmon, whose home is in Belle Fourche, will also continue duties as coordinator in the civilian defense activities.

Maj. Curtis A. Nelson, formerly engineer at the Pine Bluff, Ark., ar and **Capt. Jefferson Farmer,** ass to the area engineer at the Ordnance Works, El Dorado, have assigned to duty with the U. S. Eng Office at Little Rock, Ark.

Edward A. Croak has been appo chief engineer, bureau of buildin spection, Pittsburgh, Pa.

Maynard Kitchen, draftsman for statewide highway planning surve South Dakota, and formerly empl by the Stanley Engineering Co., M cotine, Iowa, has resigned to acce position with the Beech Aircraft Wichita, Kan.

Peter H. Hostmark, consulting engi of Seattle, has been commissione lieutenant in the Army Air Trans Command and is receiving prelim training in Florida. His practice be handled for the duration by G C. Runciman.

Dan Setchfield has resigned as engineer of Anchorage, Alaska.

Capt. John S. Detlie, assistant ca flage officer of the Seattle distric the U. S. Engineers, has been prom to the rank of major.

Maj. George F. Tait has been appo chief of the Alaska operations div of the Seattle engineer district and **Emil H. Rausch, Jr.,** has been desig Tait's assistant. The former has assistant to the district executive Alaska services while the latter has serving the Seattle engineer distric officer in charge of special Alaska struction projects.

John W. Hunter, of Raleigh, N. C graduate of North Carolina State lege, has just been promoted to rank of major at the Army Ordn Depot at Charleston, S. C., where post engineer and officer in charg the maintenance and construction sion. Prior to entering the army in 1941, he was connected with the C lina Power & Light Co. at Raleigh

Hugh B. Hines, Jr., of Kinston, N former engineer for the Kinston H ing Authority, has been promoted major at Fort Benning, Ga., where is an instructor in machine gun Major Hines received his engineer degree from North Carolina State lege in 1934.

...re big housing planned ... Metropolitan Life

... Metropolitan Life Insurance Co. ... built the immense Parkchester ...ment in the Bronx, New York ...now housing many thousands of ...s in a score of apartment build- ...has announced plans for another ... project for postwar construction. ... new development, announced by ... F. H. La Guardia, and Frederick ...ker, president of the insurance ...ny, on April 18, will consist of a ...aped community of 35 medium- ... apartment buildings on the 72- ...act bounded by First Ave., Ave. C, ...4th St. and East 20th St., Man- ... Tentative plans for the develop- ... which will include about 18 ...rd city blocks and cost $40,000,000 ...,000,000, will be submitted to the ...Planning Commission and will then ...the Board of Estimate which must ...e a contract between the city and ...nsurance company dealing with ...enance of the project.

... apartment buildings, it was an- ...ed, will cover 30 percent of the ... the rest of the area being devoted ...dscaping, roadways, open courts, ...ther facilities for maximum light ...ir for tenants who will pay from ...o $14 a room. The buildings are ...ed to house a total of 30,000 tenants. ... housing development, the first to ...t forward under the urban re- ...opment bill, signed by Governor ...y and intended to encourage private ...ment in the rehabilitation of obso- ...but potentially valuable city neigh- ...ods, will cover a section now ...ied by old tenement houses, stores, ...ries, garages and other small indus- ...buildings. Population in the area ...dwindled from 27,000 in 1920 to ... 11,000 now.

...yor La Guardia also disclosed that ...antial progress has been made on ...ther postwar projects, both of them ...ded in the city's $110,000,000 capi- ...outlay program. Plans were about ..., he said, for a giant produce mar- ...n the site now occupied by the West ...ington Market in lower Manhattan. ...ther project is the huge Idlewild ...rt on Jamaica Bay in Queens.

City to draft more plans

...aving failed to get $40,000,000 from ...ecent session of the state legislature ...postwar housing, the New York City ...nistration has started negotiations ...tain from the state an allotment of ... $800,000 to $900,000 to permit the ... York City Housing Authority to go ...d with the preparation of plans. ...ert Moses, City Park Commissioner ... a member of the State Postwar ...ning Commission, is now negotiating ...he money. Mr. Moses hopes to ob- tain this money from the state on a certificate of intent, which would allow the state to advance the money and pledge the legislature to provide the money at its next session.

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Maritime Commission calls for 460 new ships

Contracts for construction of 460 merchant ships, including 220 new-designed Victory ships, were awarded by the Maritime Commission on April 24.

The Victory ships, slightly larger and faster, eventually will replace the Liberty-type ship which the Commission has been building by the hundreds. The contracts for the new ships were awarded to the Bethlehem-Fairfield Shipyards, Baltimore, Md.; Permanente Metals Corp., Richmond, Calif.; J. A. Jones Construction Co., Paramount City, Fla.; and the St. John's River Shipbuilding Co., Jacksonville, Fla. In addition, the Commission awarded a contract to the Alabama Drydock & Shipbuilding Co., Mobile, Ala., for 28 tankers.

New York-Boston pipeline is considered by the PAW

The Petroleum Administration for War is considering construction of a branch pipeline from New York City to Boston, Mass. It is proposed to send fuel oil into New England if the oil supply reaching New York is sufficient and if critical materials required for construction are available. The line would connect with the two Texas-to-New York pipelines.

Maj. J. P. Parten, director of transportation for the PAW, says that a careful study has been made by pipeline engineers of the feasibility of an oil line to New England. It is possible an alternate project may be substituted calling for a pipeline from Albany, N. Y., into Massachusetts. Supplies for this line would come from tank cars sent by rail to Albany and from lake tankers and barges operating through the Great Lakes and the New York State Barge Canal, improvements on which Governor Dewey is recommending in order to facilitate the movement of oil to the eastern seaboard.

War-generated housing in Brazil

To integrate the housing problem, which has arisen in Brazil, due to increased industrial activity resulting from the war, the Brazilian Government is now in the process of completing construction of extensive housing facilities, an example of which is illustrated above. Somewhat similar in design and construction to wartime housing projects in the United States, these low-cost projects are being carried on simultaneously in the cities of Rio de Janeiro Sao Paulo, Porto Alegre, Pernambuco and Bahia.

The building industry in the cities of Rio and Sao Paulo alone employs directly about 50,000 workers, while an additional 200,000 workers are employed in supply industries, such as cement, brick, tile, lumber, hardware, paint, and sanitary ware.

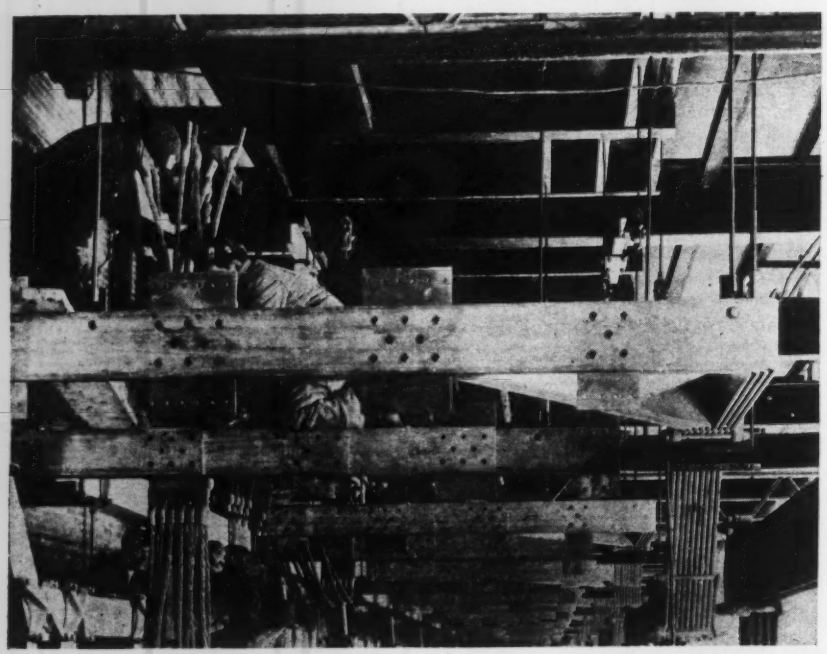
In accordance with President Vargas' social program, the new construction projects are designed not only to relieve the housing shortage but also to safeguard the health of the proletariat classes.

Under a law passed to established finances for building industrial workers' homes, each project may consist of a minimum of 50 or a maximum of 500 residences. The building site must be approved by a governmental agency, and all homes must be within a radius of 1 kilometer from the industrial establishment. The cost of each residential unit may be between $250 U. S. Currency, and approximately $1,000. All homes are amply provided with modern sanitation and electric facilities.

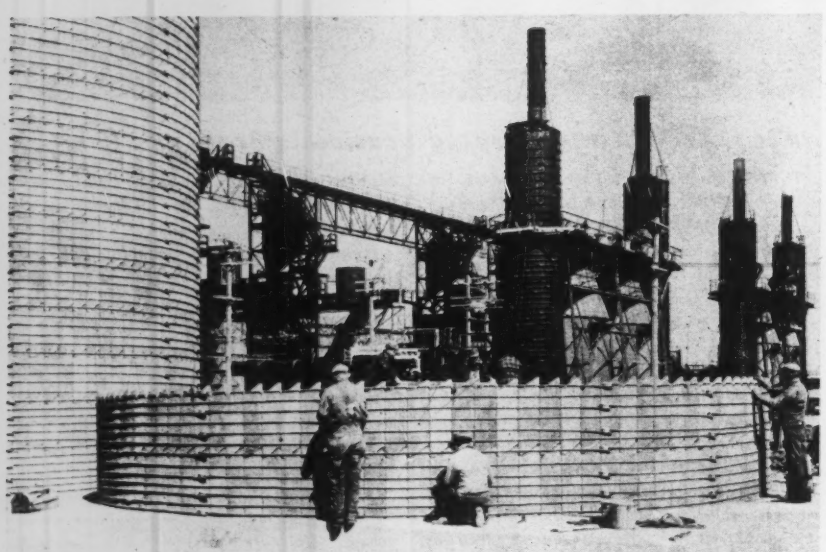
The workers may rent the new homes for an annual rental not to exceed 7 per cent of the total capital investment including land and construction, or they may be purchased at cost, payment to be spread over a 15-year period.

Big Magnesium Plant Goes into Productio

In the presence of officials of the government, army, Dow Magnesium Corp., the Austin Company, subcontractors and newspaper men, the first magnesium produced at a huge new Dow plant in eastern Michigan was ladled out of an electrolytic furnace on April 8. When the plant gets into full production it will add considerable tonnage to the country's output of magnesium for war.



Tons of silver bus bars over the electric furnaces in a Michigan magnesium plant release copper for other war products.



Concrete stave silos for storing magnesium chloride at new magnesium plant in Michigan. Beyond are the chlorine absorption towers and the conveyor system for distributing the magnesium chloride to the electrolytic reduction furnaces at the left.

Most interesting to engineers and men alike is the use of hundreds of of solid silver for bus bars in the trical system. The silver, loaned by government to release tons of copper other critical war products, is fabr by welding with silver rods in a shop.

The plant was located in the part of the state to utilize an ex power supply, though the raw mat come from western Michigan. brine from deep wells is reduce anhydrous magnesium chloride by ment with lime. The magnesium ride, which is a dry granular subst is transported to the new plant in cement cars for protection against weather.

At the electrolytic plant the ma sium chloride is handled much like cement on a construction project. It be run direct to the furnaces by elaborate conveying system, or store a series of precast concrete stave In batteries of electric furnaces chloride is broken down into pure ma sium and chlorine gas. The met ladled off by hand while the chl gas goes to absorption towers for tion by water into a weak hydroch acid. The acid is discharged in nearby river. Michigan health aut ties have passed on this procedur harmless.

Austin builds plant

Both new plants, the brine con tration and the electrolytic reduction being built by the Austin Compan Cleveland, Ohio, for the Defense P Corporation for operation by the Magnesium Corp. It is the fifth ma sium plant built for Dow by Austin. designed the process procedure, A designed the structures. Throug every attempt has been made to conse critical materials, so concrete has used in place of steel wherever pos to do so.

Most interesting from a constru standpoint is the alloy building, started. It will consist of a series high two-hinged concrete arches s ning 100 ft., resembling a rigid fr These arches, 20 ft. apart, will a roof system of concrete beams purlins. The bases of the arches separated from the foundation by ma pads. The only connection bet foundation and arch is a series o shaped dowels with the cross of th at the neutral axis of the arch be point of contact.

ctivity on the postwar front

twar plans are bulking large in the thought and action of many engineers, tors, business and industrial leaders, and important organizations throughe country. Some of the latest developments are the following:

ineering work for postwar highway uction is under way in 22 states highway departments are preparetailed plans and specifications for and bridges at an estimated buildst of $500,000,000. This plan pre-on, a joint federal-state undertakis being financed from a special of $10,000,000 authorized in the se Highway Act of 1941. A proof this size would approximate two of normal federal aid highway conion, according to Commissioner as H. MacDonald of the Public Administration. A large portion advance engineering projects alapproved by the PRA will be d in and around cities to provide yment for men demobilized from rmed forces and war industries, and lieve America's No. 1 traffic probwhich is in the cities.

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ly foresight and rigid planning to h vast labor pools, conserve reces and convert war industries to a time economy, will prevent collapse e industrial set-up in the four Pa-Northwest States when the war is a report of the National Resources ning Board warned on April 1. The y, issued from the Portland field , reported a war-produced swing resource exploitation to manufacg industries in Oregon, Washington, and Montana. The report urged ful preparation to utilize new-found ties to provide a stable economy and lleviate unemployment and migraand to prevent financial loss during return to peacetime activity. The ning board said the key to sound omy in this section lay in promoting cating and manufacturing industries. uraged by low-cost power available the Columbia River, Skagit and ually systems.

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ost promising occupation for civil neers during the war is postwar plan-, in the opinion of Ezra B. Whitman Baltimore, Md., president of the rican Society of Civil Engineers. He ld members and guests of the Ala-a section of the society at its annual g meeting held April 9 in Birming-, Ala. Mr. Whitman said that for the tion of the war the civil engineer go into war industry, join the armed es, or plan for construction after the "As the majority of the 20,000 registered civil engineers in the United States are too old for the armed forces, and as industry wants more production than construction engineers," he added, "postwar planning is the only advisable thing to do. It is the job of the civil engineer now to convince the nation, states and municipalities that following the war there will be a great need for immediate construction of schools, highways, streets, sewerage systems and other similar projects."

Henry J. Kaiser, shipbuilder, has announced what he terms a "four pillar" program for postwar planning, which he said could be launched as soon as hostilities cease. These four are: (1) housing—hundreds of thousands, perhaps millions of units, if realtors, bankers and investors will have the courage to act; (2) highways—six-lane thoroughfares crossing and recrossing the nation, until there are no pockets of isolation and every community is a potential market; (3) hospitals—built by industry, financed by those who use them, on a practical insurance basis, certain to be so profitable that they will not only adequately reward the doctors, but provide them with substantial funds for research; and (4) transportation—great progress which can be accomplished in less than a decade with lighter metals, better fuel and able designs.

In response to an inquiry from *Engineering News-Record* regarding the postwar outlook in the waterworks field, F. A. Pope, manager of the advertising and publicity division of the Worthington Pump and Machinery Corp., makes this comment:

"There is at present, a concerted effort on the part of water works associations in the United States and Canada to stimulate municipal water departments to prepare now for the rehabilitation of plants and equipment, which will be necessary when the present curbs are removed. Several municipalities are already engaged in completing engineering studies incident to the purchase and installation of new pumping equipment as soon as they are free to carry out their plans. This sound practice could be adopted by many other cities, as it will materially reduce the time lag in obtaining new equipment to replace obsolete pumping units.

"This period during which repairs rather than replacements have been the order of the day, has clearly developed postwar needs for new equipment to replace existing units which have been kept in service long after they would normally have been considered obsolete.

"Changes in design of centrifugal waterworks pumps during the war has not been radical. Therefore, municipalities receiving recommendations at the present time may feel assured that they will cover the designs and practice which will still be current when the war ends."

Bold planning and bold action on the part of thousands of individual businessmen to meet the demands of postwar economic development were advocated on April 14 by leaders of government and industry at the first public conference of the Committee for Economic Development, recently organized for this purpose. Executives of leading financial, industrial and business corporations constituted the group. Sixty-three district chairmen representing 63,000,000 industrial workers from Maine to California were appointed by Paul G. Hoffman, president of the Studebaker Corp., chairman of the board of trustees of the committee, which will undertake the organization of all business and industry throughout the twelve Federal Reserve districts. Jesse H. Jones, Secretary of Commerce, expressed his approval of the program and stressed its importance "to the future of business and the economic security of the nation."

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Additional road projects stopped by the WPB

Highway construction projects having a total cost of $1,154,365 were halted by the War Production Board on April 20, in line with its policy of curtailing all non-essential highway construction. The projects were:

Kentucky—From Bowling Green south on U. S. Highway 31-W, grading, draining and bituminous surfacing. Estimated total cost, $213,500.

New York—Near Tuxedo Park. Estimated total cost, $226,500.

Pennsylvania — Construction of a bridge across Youghiogheny River at Somerfield, in Somerset-Fayette Counties, being a relocation of U. S. Highway 40. Estimated total cost not given.

Mississippi—On State Route No. 20, from seven miles east of Georgetown to Pinola. Estimated total cost, $152,400.

New York—State Route No. 12, North of Norwich. Estimated cost, $198,965.

New York—From Henderson to Stony Point Rifle Range, grading and draining of 44-foot roadway and surfacing with plain cement 24 ft. wide. Estimated total cost $363,000.

Woodward retires as TVA water control engineer

Sherman M. Woodward has retired as chief water control planning engineer after serving the Tennessee Valley Authority for 10 years, but will serve in an advisory capacity to the chief engineer. James S. Bowman, who has been Mr. Woodward's assistant, has been appointed chief water control planning engineer.

Coming to TVA in 1933 as an engineering consultant, Mr. Woodward assumed full time direction of the water control planning department in June 1935, giving up his position as professor of mechanics and hydraulics at the University of Iowa. In these years he has supervised the planning of all engineering phases of the Authority's integrated program for the Tennessee River. He received an M.S. degree in engineering from Washington University in 1893 and his master of arts from Harvard in 1896.

Before joining TVA he served as consultant for many engineering projects, among them the Chicago Sanitary District's diversion of water from Lake Michigan. From 1913 to 1920 he was consulting engineer for the Miami Conservancy District at Dayton, O.

Mr. Bowman also brings to the position of chief water control planning engineer wide experience and a high professional reputation.

He came to the Authority as a hydraulic engineer on the construction of Norris Dam. He was later made principal hydraulic engineer and in 1935, was appointed head of the project planning division of the Water Control Planning Department. In this capacity he had the responsibility for preparation of plans for most of TVA's major projects. Since July 1941 he has been assistant chief water control planning engineer.

Investigate power costs

Investigation of the increased cost of the second Nisqually power development project of Tacoma, Wash. will soon be under way by the Ford, Bacon & Davis engineering firm of New York. The project originally was estimated to cost $11,000,000 but costs have increased until the total is expected to exceed $17,500,000.

JOBS OF THE WEEK

HOUSING, Washington
Bremerton Housing Authority, Bremerton, Wash., awarded contract for 500 h units, to C. F. Davidson, Tacoma. Estimated cost, $920,000. Johanson, Bain, & Grainger, Seattle Wash., are achitects.

HOUSING, Ohio
Public Housing Authority, Cleveland, O. awarded contract housing proj Lloyd Builders, Chicago, Ill., estimated cost, $765,000. Maier, Outcalt & ciates, Cleveland, O., are architects.

PLANT, Martinsburg, W. Va.
Explosive Products Corp. Washington, D. C. 18 buildings, including power hospital by day labor. Estimated cost, $2,000,000. Workmen's Housing Cleveland, O. is engineer and architect.

HOSPITAL FACILITIES, Long Beach, Calif.
Bureau of Yards & Docks, Navy Dept., Washington, D. C., awarded expanding hospital facilities at Naval Hospital to P. J. Walker Co., Los An Calif. Estimated cost, $1,800,000.

EXCAVATION, New Jersey
U. S. Engineers, Philadelphia, Pa., awarded contract excavation in Chesapea Delaware Canal, to Santaniello Brothers, Jersey City. Estimated cost is $ $1,000,000.

HOUSING, Michigan
Public Housing Authority, Cleveland, O., received low bid from Goodwin struction Co., Chicago, Ill., for housing at $1,350,000. Skidmore, Owings & M Chicago, Ill. are architects.

HOUSING, Michigan
Public Housing Authority Cleveland, O., will construct housing project. M Davis Co., Kalamazoo, have been awarded contract for masonry construct $753,000. Herman & Simons, Detroit, Mich., are architects.

AIRFIELD, Texas
U. S. Engineers, Tulsa, Okla., awarded contract airfield construction, Gra Tex., to Herbert J. Hall and West Counties Construction Co, Kansas City Estimated cost is $500,000–$1,000,000.

IMPROVEMENTS, Pennsylvania
U. S. Engineers, Baltimore, Md., excavation, clearing, grading, surfacing, gheny Co. to Michael H. Parish, Pittsburgh. Estimated cost is $500,000–$1,000

IMPROVEMENTS, Texas
Civil Aeronautics Administration, Fort Worth, received lowest bid for imp ments, Aransas County, from Heldenfels Brothers, Corpus Christi, at $1,024,1

HOUSING, Oregon
Public Housing Authority, Portland, Ore., received lowest bid from Tri Construction Co., Portland, Ore., for 325 unit family dwellings, dryboard $616, plaster $624,809. Pietro Belluschi, Portland, is architect.

BUILDINGS, Michigan
U. S. Engineers, Detroit, awarded contract reclamation shed, fence, four W buildings, Wayne Co. to Gilbert Douglas, Detroit Mich. To cost less $1,000,000.

RUNWAYS, Daytona Beach, Fla.
Bureau of Yards & Docks, Navy Dept., Washington, D. C. awarded contract ways at Naval Air Station, NOY 6037 to Wright Contracting Co., Columbus, $517,320.

BUILDINGS, New York
U. S. Engineers, New York, N. Y. awarded contract temporary buildings, Sa Co. to Rheinstein Construction Co., New York. Estimated cost $500,000–$1,000 electrical work to Brown Electric Co., New York. Also building to John H. E Co., Inc., New York, $500,000–$1,000,000; electrical work to Bevis & New Westhampton, N. Y.

Note—Additional bidding and contract news on many projects large and small appear in the Constr News section beginning on page 12.

OBITUARY

...rles Wesley Anderson, 73, of ...sboro, N. C., roadmaster in charge ... Danville Division of the Southern ...y for 25 years prior to his retire... three years ago, died at Greensboro ...22.

...t. John B. Bridge, 83, widely ... as a civil engineer and one of the ...eers on the Canadian Pacific Rail... ...onstruction through the Rockies in ...rly 80's, died at Vancouver, B. C., ...20.

...rge M. Hart, 40, for the past seven ... employed as an engineer by the ...one Plantations Co., in Liberia, ...Africa, died recently at Ann Arbor, ... Mr. Hart, who worked on heavy ...uction in Liberia, returned from ...lantations last February. Born in ...York City, he later made his home ...antua, O. Enlisting at the age of ...r. Hart served in the Navy during ...st World War.

...ard Barnes Egbert, a partner in ...an Francisco, Calif., firm of Hough ...Egbert, consulting marine engineers, ...April 19.

... Douglas McBryde, construction ...eer who built Stanford Stadium and ...Spring Valley Dam, died April 19 ...n Francisco.

...lter C. Polk, 74, retired consulting ...eer, died at Asheville, N. C., April ...r. Polk had been living in Asheville ...7 years and prior to that time re... ... in Kansas City, Mo., where he was ...lting engineer for Theodore Gary ...Co.

... Col. Edgar Watt, 58, superintend... ...of construction, Rideau Canal Sys... ...died at Ottawa, Ont., April 17. Lt. ... Watt was 240th Battalion, C.E.F., ...g the first World War.

... J. Durner, 52, died in Asheville, ..., April 13. A native of Princeton, ..., Mr. Durner went to Asheville in ... as vice-president and general super... ...dent of the John M. Geary Co., and ...his capacity supervised the construc... ... of the Battery Park Hotel and a ...ber of other large structures in Ashe... ... In 1935 he formed the firm of A. J. ...er & Son, which supervised the erec... ...of buildings in a number of North ...lina cities. For the past year Mr. ...er had been associated with V. P. ...s Construction Co., of Charlotte, ..., in work on various government ...ects.

New reservoir planned in North Carolina

To provide water storage and fire protection for naval bases and war industries, the Federal Works Agency has announced that steps will be taken at once to expedite the construction of a 3,000,000-gal. untreated water reservoir at Elizabeth City, N. C. The engineering firm of Pierson and Whitman, of Raleigh, N. C., has been retained to design two types of reservoirs—one to be of reinforced-concrete construction, set partly below ground, and the other to have gravity-type concrete walls, for which no reinforcing steel will be necessary. Contractors will be asked to submit proposals for both types of reservoirs, but reinforced-concrete construction will be stipulated in the contracts if the steel can be obtained.

Some time ago a federal allotment was made for construction of a suction pump station, power transmission lines, suction mains and connecting lines to be operated in connection with a field of 110 shallow wells which the city is drilling adjacent to its present well field in order to meet a serious water shortage. Twenty-four of the new wells already have been put into operation, and the entire well field project is scheduled to be completed by July 1.

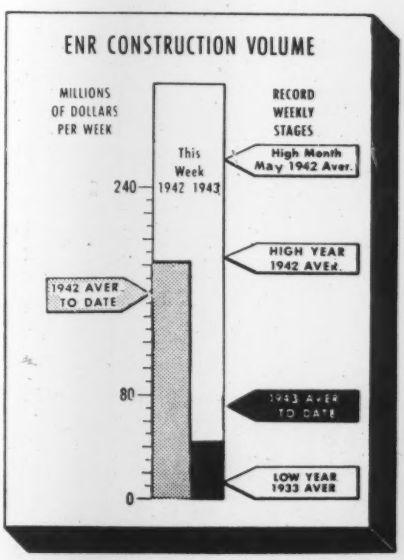
CONTRACTS AND CAPITAL

CIVIL ENGINEERING construction volume in continental U. S. for the week totals $47,100,000. This volume, not including the construction by military combat engineers, American contracts outside the country, and shipbuilding, is 43 percent lower than in the preceding week, and 74 percent below the corresponding 1942 week's total. Private work tops a week ago by 27 percent, but is 45 percent under a year ago. Public construction is 47 and 76 percent lower, respectively, than last week and last year.

The current week's construction brings 1943 volume to $1,218,109,000, an average of $71,653,000 for each of the seventeen weeks. On the weekly average basis, 1943 volume is 55 percent lower than the $2,891,784,000 reported for the eighteen-week period a year ago. Private construction, $127,752,000, is 46 percent below last year, and public work, $1,090,357,000, is 56 percent lower, when adjusted for the difference in the number of weeks. State and municipal work, and federal volume, are 75 and 54.5 percent under their respective 1942 totals.

In the classified construction groups, gains over last week are in waterworks, sewerage, bridges, industrial buildings, earthwork and drainage, and streets and roads. Increases over the 1942 week are in bridges, and earthwork and drainage.

New capital for construction purposes for the week totals $10,434,000. It is made up of $3,434,000 in state and municipal bond sales, and $7,000,000 in RFC loans for private industrial expansion. New construction financing for the year to date, $479,279,000, compares with $2,458,821,000 reported for the eighteen-week period a year ago.



Continental U. S. only—construction by military combat engineers, American contracts outside U. S. and shipbuilding not included.

CONTRACTS

Continental U. S. Only
(Thousands of dollars)

	Week Ending Apr. 30 1942	Apr. 22 1943	Apr. 29 1943
Federal	$162,648	$77,629	$37,189
State & Municipal	11,318	1,920	5,306
Total public	$173,966	$79,549	$42,495
Total private	8,304	3,616	4,605
TOTAL	$182,270	$83,165	$47,100
Cumulative 1943 (17 weeks)			$1,218,109
1942 (18 weeks)			$2,891,784

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1942 18 weeks	1943 17 weeks
NON-FEDERAL	$233,866	$78,929
Corp. Securities	75,414	2,821
State & Mun.	127,089	64,475
R.F.C. loans	31,363	8,500
FPHA loans	.....	3,133
FEDERAL	$2,224,955	$400,350
TOTAL CAPITAL	$2,458,821	$479,279

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost	Apr. '43	288.80	138.83
Building Cost	Apr. '43	227.50	122.98
Volume	Mar. '43	228	100

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

Location of ENR Correspondents

Symbols and Abbreviations Include:

†	Federal Government
*	Project of $500,000 or over
ENR	Engineering News-Record
CD	Engineering News-Record Construction Daily
A-E-M	Architect—Engineer-Management type of contract.

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply	Unclassified
Sewers, Waste Disposal	Latin America
Bridges, Grade Crossings	Public Buildings
Streets & Roads	Commercial Buildings
Earthwork, Waterways	Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR):

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Note: To comply with censorship requirements, addresses on some reports are being generalized. Data which would reveal the purpose of the improvements and the size are withheld. The name of contractor and general area are reported.

WATER SUPPLY

PROPOSED WORK

Ill., East Moline — Rescinded contract for pump. station and pipe lines. Will probably ask for new bids soon. Howard R. Green Co., 208 Bever Bldg., Cedar Rapids, Ia., engr. CD 3/24—ENR 4/1 under CA.

†La., Natchitoches—E. L. McClung, Jr., Mayor, water sys., La. 16-241. $24,000. **FWA.** Freese & Nichols, 407 Capps Bldg., Fort Worth, Tex., engrs. CD 4/2—ENR 4/8.

†Tex., New Boston—J. R. McGee, mayor, WW imprvs., extens., Tex. 41-600, $146,000. **FWA.** Gieb, Lafoche, Dahl & Chappell, Texas Bank Bldg., Dallas, engrs. CD 4/9—ENR 4/15.

†Utah—Pub. Housing Auth., NHA, Dierks Bldg., 10 St. and Grand Ave., Kansas City, Mo., postponed bids to have been opened Apr. 20, water purification plant, for housing, Project 42014. Hodgson, Ashton & Evans, 806 Eccles Bldg., Ogden, archts.

B. C., Esquimalt—Municipality, exten. water and sewerage sys.

B. C., Royal Oak—Corporation of Saanich, concrete water reservoir, new waterworks sys. and watermains. $350,000.

N. S., North Sydney—Installing new 12 in. pipe to imprv. water situation. $17,000.

N. S., Yarmouth—E. Spinney, mayor, WW sys. exten. $20,000.

Que., Ste. Therese—New WW sys. About $25,000.

Ont., Wallaceburg—Altering filtration plant, and filtration unit addn. About $30,000.

BIDS ASKED

Bids Asked May 13

Ill., Chicago—Sanitary Dist. of Chicago, R. A. Woodhull, chn. Finance Com., 610 S. Michigan Ave., water cooled dampers, repairing vapor heaters. Contr. 43-8 (SW-M).

Bids Asked

†New Jersey—Bendix Aviation Corp., Eclipse Aviation Div., Bendix, 1 story, brick pump. station, incl. dry wells. Federally financed.

LOW BIDDERS

D. C., Wash.—District Comrs., District Bldg., Apr. 19, watermain from 18 St. and Minnesota Ave. to Firth Ave. and Stevens Rd., S.E., from Lombardi Constr. Co., Real Estate Trust Bldg., Phila., Pa., **$206,674**; S. Capital St., Overlook Ave. and 4 St. S.E., from Leo Butler Co., Silver Spring, Md., **$241,995.** CD 4/1—ENR 4/8.

N. Y., Central Islip—At office Dpt. Mental Hygiene, State Office Bldg., Albany, Apr. 21, waterlines, sewers, from South Shore Const. Co. and J. F. Dunn, 108 West Ave., Patchogue, **$16,224.** CD 4/19.

CONTRACTS AWARDED

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, wells, Neg-Jax-43-747, Orange Co., to Libby & Freeman, Orlando, under **$50,000.** Awarded 4/13.

†Kansas—U. S. Eng., 10 E. 17 St., Kansas City, Mo., excav., addn. to water supply sys., sewage disposal plant addn., etc., Ellis Co., to Burt & Binford, Contractors, Hutchinson, **$50 000-$100,000.**

†Kentucky—U. S. Eng., 522 U. S. Post Office & Courthouse, Cincinnati, O., water and sewage plant addns., Boyle Co., to H. & F. H. Hosea Co., 626 Bway., Cincinnati, O. under **$50,000.**

†Missouri—U. S. Eng., 10 E. 17 St., Kansas City, Mo., settling basin, excav., backfilling, water piping, etc., Newton Co., to D. P. Pray, Monett, under **$50,000.**

†New Jersey—U. S. Eng., 120 Wall St., New York, N. Y., water storage tank, Middlesex Co., to J. L. Muscarelli, 115 Midland Ave., Garfield, **$100,000.**

†New York—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., battery element reservoir, incl. pipeline, to Brown & Matthews, Inc., 122 E. 42 St., New York, N. Y. Est. under **$50,000.**

†South Carolina—U. S. Eng., Florence, water, electric and gasoline distr., Georgetown Co., to Boyle Constr. Co., Sumter. Bids 4/14.

†Tennessee—U. S. Eng., 512 Spring St. N.W., Atlanta, Ga., 250,000 gal. reservoir, Davidson Co., to Dewitt Ward, c/o Oman Const. Co., Acklen Park, Nashville, under **$50,000.**

Tenn., Kingsport—City, F. L. Cloud, filter plant addn., to Fiske-Carter Const. Co., Greenville, S. C., **$78,480.** Wiedeman & Singleton, C. & S. Bldgs., Atlanta, Ga., engrs. CD 11/23/42—ENR 11/26.

†Texas—U. S. Eng., Commercial Bldg., Albuquerque, N. M., water supply, facilities, Presidio Co., to R. H. Fulton & Co., Lubbock, under **$50,000.**

†Texas—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., water well, Gray Co., to Layne-Texas Co., Ltd., 3901 Elm St., Dallas, under **$50,000.**

†Texas—U. S Eng., Fort Sam Houston, elevated water tank, Bexar Co., to G. W. Mitchel, 612 Builders Exch. Bldg., San Antonio, over **$50,000.**

†Utah, Layton—Federal Works Agency, Newhouse Bldg., Salt Lake City, 500,000 gal. concrete reservoir, installing 8,500 ft. 14 in. steel pipe, to J. B. and R. E. Walker, 21st South and 10th West Sts., Salt Lake City, **$46,857. FWA.** Bids 3/22. CD 3/19—ENR 12/17.

†Wisconson — U. S. Eng., 520 Merchandise Mart, Chicago, Ill., water supply and sewage facility modifications, Monroe Co., to Orfei Constr. Co., Melrose Park, Ill. under **$50,000.**

Ont., Strathroy — Municipality, duplication existing watermains, day labor, **$15,000.** Pub. Utilities Comn., engr. CD 1/13—ENR 1/28.

Ont., Cooksville — Toronto Twp., G. H. Pinchin, clk., watermains, to Dundas Construction, Ltd., 28 Grove St., Toronto. Est. **$30,000.** Gore & Storrie, 1130 Bay St., Toronto, engrs.

SEWERS, WASTE DISPOSAL

PROPOSED WORK

Calif., Richmond — Local sewerage sys. addn., involving constr. of 30 or 39 in. sewer along 47 St. $360,000. Will apply for funds. E. A. Hoffman, city engr.

Conn., Shelton—Dpt. P. Wks., City sewage disposal sys. $100,000. Haller neering Associates, 410 Asylum St., Hartford, engr.

Ky., Morganfield—City, c/o mayor, sewers, disposal plant. $100,000. Plans cation to FWA. Black & Veatch, 4706 Kansas City, Mo., engrs.

†New Jersey—Pub. Housing Auth., 270 Broadway, New York, N. Y., indefi postponed construction sewage disposal NJ-28061. CD 4/21—ENR 4/29.

O., Canton—Bids within 60 days, sewer and water facilities. Over $1 J. Shisler, city engr.

†Pa., Manheim — Federal Works Agency Lafayette St., New York, N. Y., approx. ft. 8 and 15 in. sewers, 1,500 ft. 6 in laterals, etc. $80,070.

†Tex., LaMarque — Galveston Co. Control & Imprvt. Dist. 3, Galveston, sanitary sewer lines, Tex. 41-265. **FWA.** J. J. Rady, Insurance Bldg., Worth, engr. CD 4/14—ENR 4/22.

†Tex., New Boston—City, J. R. mayor, sanitary sewerage sys. imprvs., Tex. 41-600, $171,700. **FWA.** Gieb, La Dahl & Chappell, Texas Bank Bldg., engrs. CD 4/14—ENR 4/22.

Man., Brandon—Municipality, $50,000.

Ont., Broughdale—London Twp., sewer, $28,000. F. A. Bell, County Thomas, engr.

Ont., Lindsay—W. R. Allel, clk., incinerator. $50,000.

Ont., London—Municipality, 36 in. exten. Pall Mall St., $27,000. City Hall, engr.

Ont., Ottawa—Chairman City Bd. bids soon sewer and watermain extns. section Ottawa East. $25,575. c/o owner, engr.

Ont., Windsor—Tecumseh Twp., Ouellette, clk., R.R.2, sewers and Grand Marais drainage sys. $50,000. strong, Windsor, engr.

LOW BIDDERS

Calif., Los Angeles—Bd. P. Wks., rein.-con. blanket sewer along portion North Outfall Sewer, from Martin 721 S. Ford Blvd., Los Angeles, $25,[illegible] Aldrich, City Hall, engr.

CONTRACTS AWARDED

†Georgia—U. S. Eng., Post Office Savannah, sanitary sewers, water distr. Houston Co., to Dixie Constr. Co., under **$50,000.**

†Mississippi—U. S. Eng., Grant St., Westwood St., Mobile, Ala., addnl. sludge and steam heating piping sys. for Wilkinson Co., to B. Brezner, Alexandria under **$50,000.**

†New Mexico—U. S. Eng., Albuquerque addnl. sewer facilities, Bernalillo Co., Cooper-Staehlin-Whisler, Albuquerque, **$50,000.** Awarded 4/13.

†Oregon—U. S. Eng., Pittock Blk., Por drainage facilities, appurtenances, Jac Co., to Russell Olson, Medford, under $

†Texas—U. S. Eng., Albuquerque, N addn. outfall sewer, El Paso Co., to E & Burn, Las Cruces, N. M., under **$50,00**

Tex., Houston—J. N. Edy, city mgr., storm sewers, to Tellepsen Constr. Co., Clay St., approx. **$25,000.**

BRIDGES, GRADE CROSSINGS

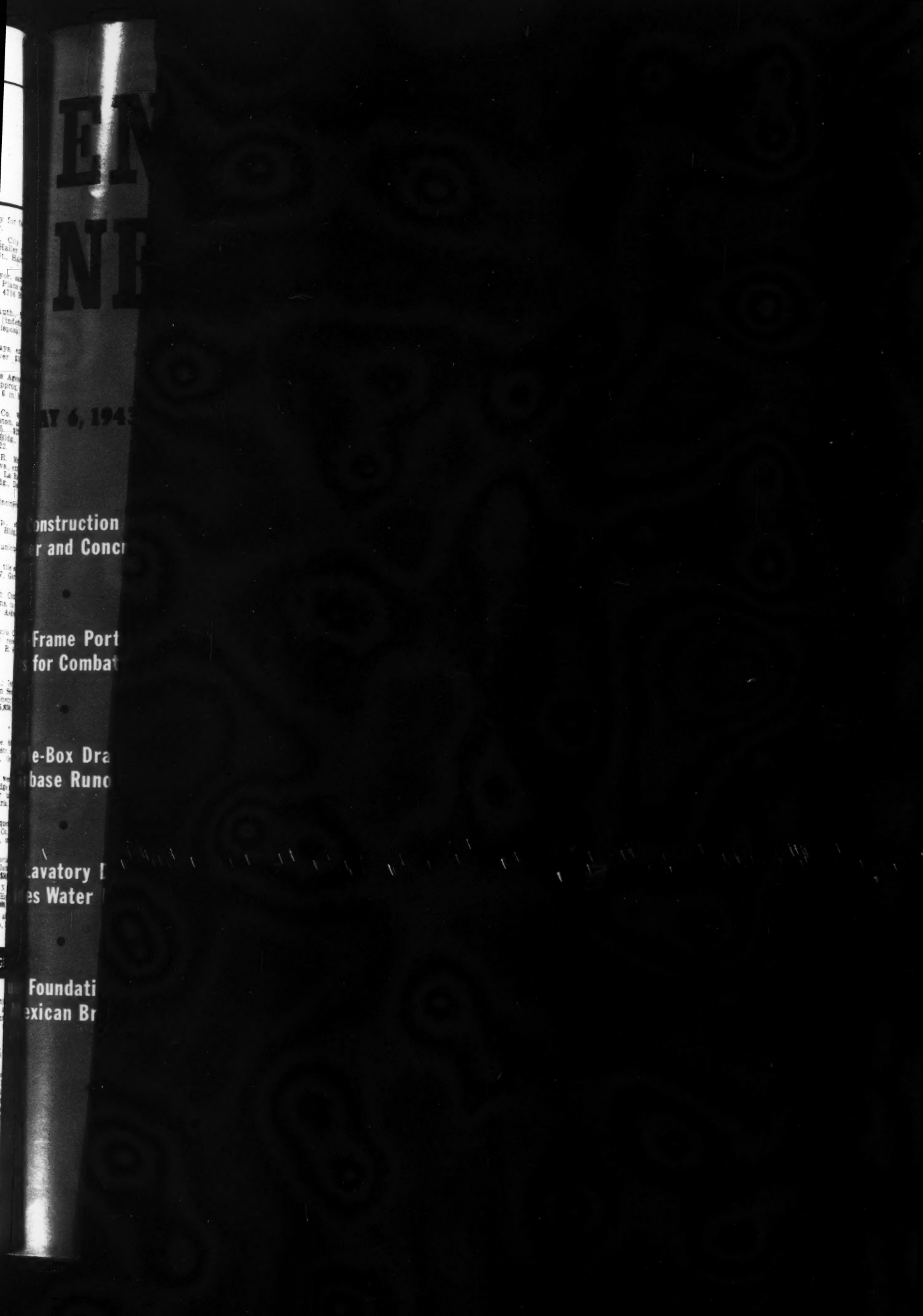
PROPOSED WORK

Man., Brandon—Municipality in con tion with Canadian Pacific Ry. Co., J. E. strong, ch. engr., Windsor Sta., Mont Que., doubling width First St. Bridge new rein.-con. approaches. $100,000.

Que., Quebec City—F. X. Chouinard, clk., subway on St. Valier St. $190,000. Hamell, City Hall, engr.

Que., St. Lambert—Province of Quebec City, and Canadian National H. A. Dixon, ch. engr., (oper.) 360-355 St., Montreal, subway constr. on Victoria Ave., 800 ft. west of present level cr $90,000. Canadian National R. R., Mont engr.

BIDS ASKED

Bids Asked May 4

Iowa—State Hy. Comn., Ames, concrete culvert exten., U. S. 30 in Section 15, Fl